

REMARKS/ARGUMENTS

In the Claims:

Claims 18-41 are in this application.

Claims 1-17 have been canceled.

Claim 18 is currently amended.

Claims 21-41 are new.

Claim Rejections

Rejections under 35 U.S.C. § 102

Claims 18-20 were rejected under 35 U.S.C. 102(b) as being anticipated by Bajor et al. (5,382,541) (hereinafter "Bajor").

Claim 18 is currently amended to recite "self-aligned" instead of "perfectly aligned." No new matter has been added.

Bajor fails to disclose **deep isolation trenches and shallow isolation trenches being self-aligned**, as recited in amended claim 18; the rejection is not supported by the cited art and should be withdrawn. In contrast to teaching deep and shallow trenches that are self-aligned to each other, Bajor teaches a self-aligned oxide etch due to polysilicon in both the deep and shallow trenches. (Bajor at col. 5, line 66 – col. 6, line 5 and col. 7, lines 5-7). The oxide etch of Bajor selectively etches TEOS oxide while not etching polysilicon and, in this sense, the etch is self-aligned to materials on the substrate. However, the deep and shallow trenches of Bajor are not self-aligned, but instead are aligned in two separate lithography steps. (Bajor at col. 3, lines 22 – 43

and col. 5, lines 29 – 47).). Therefore, the oxide etch of Bajor is self-aligned, but the deep and shallow trenches are not. (Bajor at col. 3 lines 22-43; FIGs. 3c-3e).

Claims 19 and 20 depend from claim 18. Based at least in part on their dependencies, claims 19 and 20 are not anticipated by Bajor.

Claim 19 recites shallow trenches between about 1000 Å and 2000 Å in depth. Contrary to the examiners assertion, Bajor does not disclose shallow trenches in the range of 1000 to 2000 Å. Instead, Bajor discloses shallow trenches of 15,000 Å and shallow trenches in the range of a few thousand Å to a few µm. (Bajor at col. 3, line 39; col. 4, line 46; col.5, line 44; col. 7, lines 19-25). The rejection is not supported by the art and should be withdrawn.

Claim 20 recites deep trenches between about 3000 Å and 6000 Å in depth. Contrary to the examiners assertion, Bajor does not disclose deep trenches in the range of 3000 to 6000 Å. Instead, Bajor discloses deep trenches of 40,000 Å and that those trenches need not extend fully to a bottom oxide. (Bajor at col. 5, lines 36-37; col. 7, lines 23-24). The rejection is not supported by the art and should be withdrawn.

Conclusion:

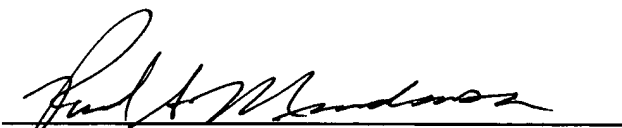
Applicant respectfully submits that claims 18-41 are patentable, and accordingly, the application is now in condition for allowance. Early issuance of the Notice of Allowance is respectfully requested.

The Commissioner is hereby authorized to charge shortages or credit overpayments to Deposit Account No. 02-2666. A Fee Transmittal is enclosed in duplicate for fee processing purposes. The Examiner is invited to call Paul A. Mendonsa at (503) 439-8778 if there remains any issue with allowance of this case.

Respectfully submitted,

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